

Claims

- [c1] 1. A speaker adapted to be installed onto a receiving member, comprising:
- a frame showing substantially a profile of a frustum and having openings at the peripheral wall thereof;
 - a magnetic circuit arranged on the frame;
 - a diaphragm fitted to the frame; and
 - a voice coil arranged on the diaphragm;
- the frame having a fitting section formed so as to include therein the center of gravity of the entire speaker and project along a plane substantially in parallel with the plane including the peripheral edges of the openings so as for the speaker to be installed onto the receiving member.
- [c2] 2. A speaker adapted to be installed onto a receiving member, comprising:
- a frame;
 - a magnetic circuit arranged on the frame;
 - a diaphragm fitted to the frame; and
 - a voice coil arranged on the diaphragm;
- the frame having a fitting section formed so as to include therein the center of gravity of the entire speaker

and project substantially along a plane intersecting the direction of vibration of the diaphragm so as for the speaker to be installed onto the receiving member.

[c3] 3. A speaker adapted to be installed onto a receiving member and comprising:
a frame;
a magnetic circuit arranged on the frame;
a diaphragm fitted to the frame; and
a voice coil arranged on the diaphragm;
the frame having a fitting section formed so as to project substantially along a plane intersecting the direction of vibration of the diaphragm and adapted to be fitted to the receiving member so as to place the center of gravity of the entire speaker on a plane including the receiving member.

[c4] 4. The speaker according to claim 2 , wherein the fitting section projects substantially along a plane perpendicular to the direction of vibrations of the diaphragm.

[c5] 5. The speaker according to claim 3, wherein the fitting section projects substantially along a plane perpendicular to the direction of vibrations of the diaphragm.

- [c6] 6. The speaker according to any of claims 1, wherein the frame is provided with a bottom section for receiving the magnetic circuit, the bottom section having an opening defined by the peripheral edge thereof that is expanded toward a side of the bottom section to make the bottom section show a profile of a frustum and adapted to be closed when the diaphragm is fitted to the tip of the peripheral edge, and the fitting section projects outwardly from the outer peripheral surface of the bottom section.
- [c7] 7. The speaker according to any of claims 2, wherein the frame is provided with a bottom section for receiving the magnetic circuit, the bottom section having an opening defined by the peripheral edge thereof that is expanded toward a side of the bottom section to make the bottom section show a profile of a frustum and adapted to be closed when the diaphragm is fitted to the tip of the peripheral edge, and the fitting section projects outwardly from the outer peripheral surface of the bottom section.
- [c8] 8. The speaker according to any of claims 3, wherein the frame is provided with a bottom section for receiving the magnetic circuit, the bottom section having an opening defined by the peripheral edge thereof that is expanded toward a side of the bottom section to make the

bottom section show a profile of a frustum and adapted to be closed when the diaphragm is fitted to the tip of the peripheral edge, and the fitting section projects outwardly from the outer peripheral surface of the bottom section.

- [c9] 9. The speaker according to any of claims 1, wherein the fitting section is integrally formed with the frame so as to project from the frame.
- [c10] 10. The speaker according to any of claims 2, wherein the fitting section is integrally formed with the frame so as to project from the frame.
- [c11] 11. The speaker according to any of claims 3, wherein the fitting section is integrally formed with the frame so as to project from the frame.
- [c12] 12. The speaker according to any of claims 1, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member that are separated from the center of gravity by the same distance.
- [c13] 13. The speaker according to any of claims 2, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member that are separated from the center of gravity by the same distance.

- [c14] 14. The speaker according to any of claims 3, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member that are separated from the center of gravity by the same distance.
- [c15] 15. The speaker according to any of claims 1, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member and the center of gravity of the speaker is located within the region defined by linking the adjacent one of the fitting positions.
- [c16] 16. The speaker according to any of claims 2, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member and the center of gravity of the speaker is located within the region defined by linking the adjacent one of the fitting positions.
- [c17] 17. The speaker according to any of claims 3, wherein the fitting section has a plurality of fitting positions for it to be fitted to the receiving member and the center of gravity of the speaker is located within the region defined by linking the adjacent one of the fitting positions.
- [c18] 18. The speaker according to any of claims 1, wherein the receiving member is a structure of a vehicle.
- [c19] 19. The speaker according to any of claims 2, wherein the receiving member is a structure of a vehicle.

[c20] 20. The speaker according to any of claims 3, wherein the receiving member is a structure of a vehicle.

[c21] 21. A method of installing a speaker having a frame showing substantially a profile of a frustum and having openings at the peripheral wall thereof, a magnetic circuit arranged on the frame, a diaphragm fitted to the frame and a voice coil arranged on the diaphragm onto a receiving member; the method comprising:
installing the speaker in position so that the plane including the peripheral edges of the openings is substantially in parallel with the plane including the receiving member and the center of gravity of the entire speaker is located on the plane including the receiving member.